

SLIP RING LASER ILLUMINATOR FOR SPEED DOMES

ABSTRACT

An illumination system is provided to enable speed dome camera systems with a minimum of weight increase and existing motor designs to be used in conditions where the ambient illumination is insufficient for surveillance needs. A laser illumination system is divided and dispersed in the system, with its heavy components, namely the power supply, heat sinks, and laser beam generator mounted outside the speed dome and only a lightweight fibre optic cable output mounted adjacent to the speed dome camera. The key innovation in the present invention is having only a laser beam delivered over an optical slip joint rather than power for a laser, allowing for a higher speed of orientation of the camera. A pulsing system is used to avoid flashback within the speed dome.